

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

Case No. 3:22-cv-08875-CRB

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In re Astra Space Inc. f/k/a Holicity Inc.  
Securities Litigation,

AMENDED CLASS ACTION COMPLAINT  
FOR VIOLATION OF THE FEDERAL  
SECURITIES LAWS

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This Document Relates To: All Actions

CLASS ACTION  
JURY TRIAL DEMANDED

Lead Plaintiffs Qingping Deng and Marcos Luis Molins García (“Plaintiffs”), individually and on behalf of all other persons similarly situated, by Plaintiffs’ undersigned attorneys, for Plaintiffs’ complaint against Defendants (defined below), alleges the following based upon personal knowledge as to Plaintiffs and Plaintiffs’ own acts, and information and belief as to all other matters, based upon, *inter alia*, the investigation conducted by and through Plaintiffs’ attorneys, which included, among other things, a review of the defendants’ public documents, conference calls and announcements made by defendants, United States Securities and Exchange Commission (“SEC”) filings, wire and press releases published by and regarding Astra Space Inc. f/k/a Holicity Inc. (“Astra” or “Company”), analysts’ reports and advisories about the Company, and other information readily obtainable on the Internet. Plaintiffs believe that substantial evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for discovery.

**NATURE OF THE ACTION**

1. This is a federal securities class action on behalf of a class consisting of all persons and entities other than Defendants who purchased or otherwise acquired the publicly traded securities of the Company between February 2, 2021 and December 29, 2021, both dates

1 inclusive (the “Class Period”), seeking to recover compensable damages caused by Defendants’  
2 violations of the federal securities laws and to pursue remedies under Sections 10(b) and 20(a)  
3 of the Securities Exchange Act of 1934 (the “Exchange Act”) and Rule 10b-5 promulgated  
4 thereunder; and on behalf of a class consisting of all persons and entities other than Defendants  
5 who were solicited to approve the Reverse Merger (as defined herein) and to retain rather than  
6 redeem Holicity shares pursuant to a defective proxy statement, seeking to recover compensable  
7 damages caused by Defendants’ violations of the federal securities laws and to pursue remedies  
8 under Section 14(a) of the Exchange Act. The Section 14(a) claims arise from Defendants’  
9 negligence and do not assert that Defendants acted with scienter.  
10

11  
12 2. Astra is a space launch service provider that purports to provide small satellite  
13 (“smallsat”) manufacturers and operators with inexpensive, frequent, and precise deployment of  
14 small satellites to required orbits. From inception through December 31, 2021, the Company  
15 incurred significant losses and earned no revenue. The Company planned to earn revenue in the  
16 near term by contracting with smallsat manufacturers to launch their satellites (also called  
17 payloads) to low Earth orbits (“LEO”). Longer term, it planned to earn additional revenue by  
18 offering in-space services, which would include operating orbital transfer vehicles (which take  
19 satellites that did not reach their precise targets the rest of the way to their desired orbits) and  
20 operating constellations, networks of satellites created in LEO for varying reasons that include  
21 providing communication services to underserved or remote areas.  
22

23 3. Throughout the Class Period, Defendants repeatedly told investors that Astra  
24 would launch its rockets monthly in 2022, weekly in 2023, and near-daily in 2025. Though  
25 purporting to warn investors of all the potential risks that could derail these projections,  
26 Defendants never revealed that *even if everything went right*, the size of the total addressable  
27  
28

1 market (“TAM”) for smallsat launches—especially given the limited size of the payload<sup>1</sup>  
2 capacity Astra planned for its rocket-- would never allow Astra (or any smallsat launching  
3 company) to launch anywhere near 300 rockets in 2025.  
4

5 4. Defendants also repeatedly touted their plans to increase the payload capacity of  
6 Astra’s rocket to 500 kilograms (“kg”) to launch to a mid-inclination 500 km orbit. However, at  
7 no point did Defendants reveal that they could only achieve a 500 kg payload capacity by entering  
8 into an agreement with Astra’s direct competitor, Firefly Aerospace (“Firefly”), to license the  
9 rights to manufacture Firefly’s “Reaver” engines for Astra’s rockets. Moreover, Defendants  
10 failed to disclose that in the agreement, Firefly limited the number of engines Astra could attach  
11 to its rockets to ensure Astra could only reach, but not surpass, a 500 kg payload capacity and  
12 thus not meaningfully compete with Firefly or other smallsat launcher competitors planning for  
13 payload capacities far in excess of 500 kg.  
14

15 5. On December 29, 2021, during market hours, market researcher Kerrisdale Capital,  
16 an investment management firm,<sup>2</sup> released a report entitled “Astra Space, Inc (ASTR): Headed for  
17 Dis-Astra” (“Report”).<sup>3</sup> The Report based its conclusions on analyses not previously done by any  
18 other market participant and a “range of interviews with key industry players,” and states that  
19 Kerrisdale obtained the information contained in the Report from “accurate and reliable” sources.  
20 The Report revealed to Astra’s investors what Defendants kept hidden, that Astra could not  
21 increase its payload capacity to 500kg without entering into a secret agreement with Firefly to  
22 manufacture its engines, an agreement which also capped Astra’s payload at 500kg, an undersized  
23 payload as compared to its competitors. The Report further revealed that, even assuming that none  
24  
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26 <sup>1</sup> A payload is the cargo that a launch vehicle transports into orbit, such as a satellite or multiple satellites,

27 <sup>2</sup> Kerrisdale Capital’s only three employees are Sahm Adrangi, the Chief Investment Officers, Edward Gu, the Chief  
Financial Officer, and Peter Baer, Head of Marketing & Investor Relations. <https://www.kerrisdalecap.com/>.

28 <sup>3</sup> The Report is attached hereto as Exhibit 1.

1 of Astra's risk warnings materialized, its TAM would not be anywhere near large enough by 2025  
2 to allow Astra to launch 300 rockets that year. In other words, Defendants had no basis for  
3 projecting near daily launches by 2025.  
4

5 6. On this news, Astra's shares fell \$1.10 per share, or approximately 14%, to close at  
6 \$6.61 per share on December 29, 2021, on unusually heavy trading volume, damaging investors.

7 7. As a result of Defendants' wrongful acts and omissions, and the decline in the  
8 market value of the Company's securities, Plaintiffs and other Class members have suffered  
9 significant losses and damages.  
10

### 11 **JURISDICTION AND VENUE**

12 8. The claims asserted herein arise under and pursuant to §§10(b), 14(a), and 20(a)  
13 of the Exchange Act (15 U.S.C. §§78j(b), 78n, and 78t(a)) and Rules 10b-5 and 14a-9  
14 promulgated thereunder by the SEC (17 C.F.R. §240.10b-5, 240.14a-9).

15 9. This Court has jurisdiction over the subject matter of this action under 28 U.S.C.  
16 §1331 and §27 of the Exchange Act.

17 10. This Court has jurisdiction over each defendant named herein because each  
18 defendant has sufficient minimum contacts with this judicial district so as to render the exercise  
19 of jurisdiction by this Court permissible under traditional notions of fair play and substantial  
20 justice.  
21

22 11. Venue is proper in this judicial district pursuant to §27 of the Exchange Act (15  
23 U.S.C. §78aa) and 28 U.S.C. §1391(b) as the alleged misstatements entered and subsequent  
24 damages took place within this judicial district.

25 12. In connection with the acts, conduct and other wrongs alleged in this Complaint,  
26 Defendants, directly or indirectly, used the means and instrumentalities of interstate commerce,  
27  
28

1 including but not limited to, the United States mail, interstate telephone communications and the  
2 facilities of the national securities exchange.

### 3 PARTIES

4  
5 13. Plaintiffs, as set forth in the certifications previously filed in this Action,  
6 purchased the Company's securities at artificially inflated prices during the Class Period and  
7 were economically damaged thereby.

8 14. Defendant Astra purportedly operates as an operational space launch company.  
9 On June 30, 2021 Astra Space Inc. and Holicity Inc. ("Holicity"), a special purpose acquisition  
10 company ("SPAC"), merged. The Company is incorporated in Delaware with its headquarters  
11 at 1900 Skyhawk Street, Alameda, California. Shares of the Company have been listed on the  
12 NASDAQ under the ticker symbol "ASTR" since July 1, 2021. Prior to the merger, the  
13 Company's ordinary shares traded on the NASDAQ under the ticker symbol "HOL."

14  
15 15. Defendant Chris C. Kemp ("Kemp") is and was at all pertinent times the founder,  
16 Chief Executive Officer ("CEO"), and Chairman of Astra Space, Inc. Since the Reverse Merger,  
17 Defendant Kemp has served in the same capacities for the Company. According to Holicity's  
18 June 7, 2021 press release announcing that the SEC declared its Registration Statement on Form  
19 S-4 relating to the Reverse Merger effective, Defendant Kemp is "deemed to be [a] participant  
20 in the solicitation of proxies."

21  
22 16. Defendant Kelyn Brannon ("Brannon") is and was at all pertinent times the Chief  
23 Financial Officer ("CFO") of Astra Space, Inc. Since the merger, Defendant Brannon has served  
24 in the same capacity for the Company. According to Holicity's June 7, 2021 press release  
25 announcing that the SEC declared its Registration Statement on Form S-4 relating to the Reverse  
26

1 Merger effective, Defendant Brannon is “deemed to be [a] participant in the solicitation of  
2 proxies.”

3  
4 17. Defendant Steven Ednie (“Ednie”) was the Company’s CFO and secretary prior  
5 to the Reverse Merger. According to Holicity’s June 7, 2021 press release announcing that the  
6 SEC declared its Registration Statement on Form S-4 relating to the Reverse Merger effective,  
7 Defendant Ednie is “deemed to be [a] participant in the solicitation of proxies.”

8 18. Defendants Kemp, Brannon, and Ednie are sometimes referred to herein as the  
9 “10(b) Individual Defendants.”

10 19. Each of the 10(b) Individual Defendants:

- 11 (a) directly participated in the management of the Company;  
12 (b) was directly involved in the day-to-day operations of the Company at the highest  
13 levels;  
14 (c) was privy to confidential proprietary information concerning the Company and its  
15 business and operations;  
16 (d) was directly or indirectly involved in drafting, producing, reviewing, and/or  
17 disseminating the false and misleading statements and information alleged herein;  
18 (e) was directly or indirectly involved in the oversight or implementation of the  
19 Company’s internal controls;  
20 (f) was aware of or recklessly disregarded the fact that the false and misleading  
21 statements were being issued concerning the Company; and/or  
22 (g) approved or ratified these statements in violation of the federal securities laws.  
23  
24

25 20. The Company is liable for the acts of the 10(b) Individual Defendants and its  
26 employees under the doctrine of *respondeat superior* and common law principles of agency  
27  
28

1 because all of the wrongful acts complained of herein were carried out within the scope of their  
2 employment.

3  
4 21. The scienter of the 10(b) Individual Defendants and other employees and agents  
5 of the Company is similarly imputed to the Company under *respondeat superior* and agency  
6 principles.

7 22. The Company and the Individual Defendants are referred to herein as the “10(b)  
8 Defendants.”

9 23. Defendant Adam London (“London”), is and was at all pertinent times the founder  
10 and Chief Technology Officer and Director of Astra Space, Inc. The Defective Proxy Statement  
11 states that Defendant London “leads [Astra’s] technology strategy and long-term product  
12 roadmap.” According to Holicity’s June 7, 2021 press release announcing that the SEC declared  
13 its Registration Statement on Form S-4 relating to the Reverse Merger effective, Defendant  
14 London is “deemed to be [a] participant in the solicitation of proxies.”  
15

16 24. Defendant Craig McCaw (“McCaw”) served as the Chairman and CEO of  
17 Holicity, and a Director of Astra following the Reverse Merger. According to Holicity’s June 7,  
18 2021 press release announcing that the SEC declared its Registration Statement on Form S-4  
19 relating to the Reverse Merger effective, Defendant McCaw is “deemed to be [a] participant in  
20 the solicitation of proxies.”  
21

22 25. Defendant Randy Russell (“Russell”) served as the Chief Investment Officer of  
23 Holicity. According to Holicity’s June 7, 2021 press release announcing that the SEC declared  
24 its Registration Statement on Form S-4 relating to the Reverse Merger effective, Defendant  
25 Russell is “deemed to be [a] participant in the solicitation of proxies.”  
26  
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1           26. Defendant R. Gerard Salemmme (“Salemmme”) served as a Director of Holicity.  
2 According to Holicity’s June 7, 2021 press release announcing that the SEC declared its  
3 Registration Statement on Form S-4 relating to the Reverse Merger effective, Defendant  
4 Salemmme is “deemed to be [a] participant in the solicitation of proxies.”  
5

6           27. Defendant Dennis Weibling (“Weibling”) served as Director Nominee of  
7 Holicity. According to Holicity’s June 7, 2021 press release announcing that the SEC declared  
8 its Registration Statement on Form S-4 relating to the Reverse Merger effective, Defendant  
9 Weibling is “deemed to be [a] participant in the solicitation of proxies.”  
10

11           28. Defendant Wayne Perry (“Perry”) served as Director Nominee of Holicity.  
12 According to Holicity’s June 7, 2021 press release announcing that the SEC declared its  
13 Registration Statement on Form S-4 relating to the Reverse Merger effective, Defendant Perry is  
14 “deemed to be [a] participant in the solicitation of proxies.”  
15

16           29. Defendant Cathleen A. Massey (“Massey”) served as Director Nominee of  
17 Holicity. According to Holicity’s June 7, 2021 press release announcing that the SEC declared  
18 its Registration Statement on Form S-4 relating to the Reverse Merger effective, Defendant  
19 Massey is “deemed to be [a] participant in the solicitation of proxies.”  
20

21           30. Defendants McCaw, Ednie, Salemmme, Perry, Massey, Weibling, Kemp, London,  
22 Brannon, and Russell are referred to herein as the “Proxy Defendants.”  
23

24                           **CONFIDENTIAL WITNESSES (“CW”)**  
25

26           31. The allegations contained herein are based not only based on the Report and  
27 Plaintiffs’ own investigation corroborating the Report, but also on the statements of multiple  
28 former employees of Astra (and in one instance, Firefly) who collectively substantiate the factual



allegations underlying Plaintiff's claims. Each confidential witness ("CW) cited herein is listed below by job title and dates of employment.

32. CW1 worked in production<sup>4</sup> at Astra from June 2021 to June 2022. In that role, CW1 had direct involvement in engine production for Astra's rocket and had first-hand knowledge of Astra's agreement with Firefly.

33. CW2, one of Astra's first employees, worked at Astra from November 2016 to June 2021 as a Staff Engineering Technician responsible for final design and building of rocket engines. As such, CW2 had first-hand knowledge of Astra's agreement with Firefly.

34. CW3 worked as a former test engineer that worked at Firefly in 2021 and worked on engines designed under contract for Astra.<sup>5</sup>

35. CW4 worked as a former propulsion engineer at Astra from 2020 to 2021.<sup>6</sup> As a member of Astra's propulsion department, CW4 took part in and thus had first-hand knowledge of discussions pertaining to Astra's decision to increase its payload capacity goal to 500kg and its projected daily launch cadence.

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<sup>4</sup> CW1's precise job title at Astra was unique to CW1. As such, CW1 requested that Plaintiffs refrain from providing that job title. *See Cohen v. Kitov Pharm. Holdings, Ltd.*, 2018 U.S. Dist. LEXIS 45676, at \*25 (S.D.N.Y. Mar. 20, 2018)(crediting CW allegations though the complaint generically described them as "former consultants of Kitov with knowledge of the clinical trial results" because "any more detailed description in this case likely would reveal the identity of the source"). Nevertheless, the descriptive information provided regarding CW1's role at Astra sufficiently sets forth a basis for CW1's knowledge as to the facts contained in statements attributed to CW1 herein. To the extent the Court requires additional descriptive information to credit the statements attributed to CW1 herein, Plaintiffs will provide a document containing such information for *in camera* review.

<sup>5</sup> CW 4 requested that Plaintiffs refrain from providing precise dates of employment due to privacy concerns. *See id.* However, at Firefly CW3 worked directly on projects for Astra's engines, and as such had direct knowledge of the facts contained in statements attributed to CW3 herein. To the extent the Court requires additional descriptive information to credit the statements attributed to CW3 herein, Plaintiffs will provide a document containing such information for *in camera* review.

<sup>6</sup> CW4's precise job title and dates of employment are unique to CW4. As such, CW4 requested that Plaintiffs refrain from providing that job title are months of employment. *See id.* To the extent the Court requires additional descriptive information to credit the statements attributed to CW4 herein, Plaintiffs will provide a document containing such information for *in camera* review.

1           36. CW5 worked as a former supervisor over rocket production at Astra from 2021 to  
2 2022.<sup>7</sup> In that role, CW5 worked with a team of engineers responsible for the “whole engine  
3 system of the rocket.”  
4

## 5                                   **SUBSTANTIVE ALLEGATIONS**

### 6                                   **BACKGROUND**

7           37. Holicity Inc. (“Holicity”) was founded in 2020 as a special purpose acquisitions  
8 company (“SPAC”), a shell company with no commercial operations, for the sole purpose of  
9 raising money through an IPO to eventually acquire another company. This merger structure (or  
10 “de-SPAC” transaction process) allows a private company to “go public” while avoiding the  
11 rigorous regulatory scrutiny of the traditional initial public offering (“IPO”) process.  
12

13           38. On June 30, 2021, Holicity consummated a reverse merger pursuant to a Business  
14 Combination Agreement dated as of February 2, 2021, by and among Holicity, Holicity Merger  
15 Sub Inc., a wholly owned subsidiary of Holicity (“Merger Sub”), and privately owned Astra  
16 Space Operations (“pre-combination Astra”) (“Reverse Merger”) pursuant to a Registration  
17 Statement on Form S-4, declared effective by the SEC on June 4, 2021. The Registration  
18 Statement included a proxy/prospectus filed pursuant to Rule 424(b)(3) on June 8, 2021  
19 (“Defective Proxy Statement”). Immediately upon the consummation of the Reverse Merger,  
20 Merger Sub merged with and into Astra Space Operations, with Astra Space Operations  
21 surviving the merger as a wholly owned subsidiary of Holicity. Holicity changed its name to  
22  
23  
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26 <sup>7</sup> CW5’s precise job title and dates of employment are unique to CW4. As such, CW4 requested that Plaintiffs refrain  
27 from providing that job title are months of employment. *See id.* Nevertheless, the descriptive information provided  
28 regarding CW5’s role at Astra sufficiently sets forth a basis for CW5’s knowledge as to the facts contained in  
statements attributed to CW5 herein. To the extent the Court requires additional descriptive information to credit the  
statements attributed to CW5 herein, Plaintiffs will provide a document containing such information for *in camera*  
*review*.

1 “Astra Space, Inc.,” and pre-combination Astra changed its name to “Astra Space Operations,  
2 Inc.” As a result of the Reverse Merger, Astra began trading on the NASDAQ on July 1, 2021.

3  
4 39. Astra was founded in 2016 by Defendants Kemp and London. Astra is a space  
5 launch service provider that purports to provide smallsat manufacturers and operators with  
6 inexpensive, frequent, and precise deployment of small satellites to required orbits. Astra  
7 operates a class of rockets with sub-2,000kg payload capacities known as small-lift launch  
8 vehicles (“small launchers”). Astra claims that its system consists of small launch vehicle and  
9 mobile ground infrastructure that can fit inside standard shipping containers for rapid deployment  
10 anywhere in the world that its spaceports are located. Defendants claimed that Astra’s rocket  
11 only requires a launch site with little more than a concrete pad and only six Astra employees on-  
12 site, calling their launch operations “highly automated.” They further represented that because  
13 their production system is designed to scale efficiently, they expect to “perform hundreds of  
14 launches per year in the future,” and achieve “near-daily” launches in 2025. To purportedly keep  
15 its cost level low, Astra uses “off the shelf” materials and mainstream manufacturing processes,  
16 and does not develop reusable rockets.

17  
18 40. As of December 31, 2021, Astra had not generated any revenue and had incurred  
19 significant losses.

20  
21 41. Space launch services involve delivering satellites and other equipment into orbit.  
22 To achieve a successful launch, a rocket must not only make it to space but also carry a payload  
23 to its destination and deploy a satellite into orbit. The rocket launch industry is highly competitive,  
24 and includes approximately one hundred small launch providers directly competing with Astra  
25 such as Firefly, ABL, Rocket Lab, Relativity Space, and LauncherOne, as well as larger launch  
26 providers like SpaceX (led by Elon Musk) Blue Origin (led by Jeff Bezos), Relativity (led by Tim  
27  
28

1 Ellis), RocketLab (led by Peter Beck), and Virgin Galactic and Orbit (led by Richard Branson).  
2 SpaceX undisputedly dominates the rocket launch market, capturing approximately half its value,  
3 excluding Chinese and Russian missions.  
4

5 42. Astra purportedly seeks to develop a mass-produced orbital launch system that  
6 frequently and inexpensively deploys smallsats to “constellations” in LEO. LEO is an orbit around  
7 the Earth with an altitude that lies towards the lower end of the range of possible orbits, around  
8 1,200 miles (2,000 kilometers) or less. Most satellites are now in LEO (as opposed to legacy  
9 satellites and human spaceflight missions), as is the International Space Station (ISS).  
10

11 43. Satellite constellations are networks created in LEO for varying reasons, including  
12 providing communication services to underserved or remote areas. A constellation is comprised  
13 of a number of satellites of a similar type and function, designed to be in similar, complementary,  
14 orbits for a shared purpose, under shared control. Constellations are used for navigation and  
15 geodesy (*e.g.* GPS, Galileo and GLONASS), satellite telephony (*e.g.* Iridium), or Earth  
16 Observation (*e.g.* DMC, PlanetLabs). A constellation with thousands of satellites at low altitude  
17 reduces the signal latency, the time it takes for signals to move from a ground station providing  
18 internet to the satellite and then on to a user, while maintaining high levels of coverage especially  
19 in remote areas without developed ground infrastructure. Examples of satellite constellations are  
20 SpaceX’s Starlink (the largest LEO satellite internet constellation), Amazon’s Project Kuiper,  
21 OneWeb, and Telesat Lightspeed.  
22

23 44. While Astra claims it will provide frequent low-cost launch services to smallsats,  
24 larger launch providers with exponentially higher payload capacities, like SpaceX, offer rideshare  
25 missions for smallsats where many satellites from multiple operators are launched on a single  
26 rocket at a fraction of the price quoted by small launchers like Astra.  
27  
28

1           45. Astra has yet to demonstrate the reliability of its small launcher rocket. Indeed,  
2 out of ten launch attempts between July 20, 2018 and June 12, 2022, only *two* successfully  
3 achieved orbit. Three of its ten launch attempts included customer payloads; two of those  
4 carrying payloads for NASA for its Time-Resolved Observations of Precipitation structure and  
5 storm Intensity with a Constellation of Smallsats (TROPICS) mission failed, losing NASA's  
6 payloads.

7  
8           **DEFENDANTS HIDE ASTRA'S SECRET DEAL WITH FIREFLY AND THE**  
9           **CONTRACTUAL LIMITS TO ITS PAYLOAD CAPACITY**

10           46. Throughout the Class Period, Defendants claimed that they had "tailored" their  
11 rocket's payload capacity "for the needs of modern LEO satellite constellations," though in  
12 reality their undersized rockets could not compete with the larger payload capacities of Astra's  
13 direct competitors. In a March 1, 2021 interview with SpaceNews, Defendant Kemp stated that  
14 Astra's goal was to get its rocket to a 300kg capacity by 2023, and to achieve a daily launch  
15 cadence with that rocket by 2025. Just two months later, in Astra's Form S-4 Registration  
16 Statement filed on May 3, 2021 in connection with the Reverse Merger, Defendants stated that  
17 they would increase the maximum payload capacity of Astra's rocket from approximately 50kg  
18 in 2021 to up to 500kg by late 2023, *a 66% increase in its 2023 payload capacity goal*.

19  
20           47. Despite this massive shift in business model, Astra did not alter its timeline for  
21 achieving daily launch cadence by 2025, even though, as Defendants conceded, increasing  
22 payload capacity requires a significant amount of redesign work with new components and a  
23 more powerful engine. (*See, e.g.*, Astra's Form S-4, filed May 3, 2021, at 46). With time therefore  
24 of the essence, and lacking the internal capability to achieve an increased payload capacity goal  
25 by 2023 on its own, in early 2021 Astra entered into a secret \$30 million intellectual property  
26  
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28

1 (“IP”) deal with direct competitor Firefly to purchase the rights to manufacture and use Firefly’s  
2 Reaver engines on Astra’s rockets (replacing its own Delphin engines).

3  
4 48. Astra never mentioned the Firefly agreement in any of its Class Period SEC filings  
5 or press releases. Defendants also never told investors that the Firefly agreement prohibited Astra  
6 from using more than two of Firefly’s “Reaver” engines per rocket--- just enough to hit a 500kg  
7 payload capacity but not enough to exceed it. In other words, Firefly limited Astra to a 500kg  
8 maximum payload capacity, so as not to compete with Firefly’s planned payload capacity of  
9 630kg-1,000kg, and thus also precluded Astra from having the ability to compete with other  
10 small launch competitors like Rocket Lab, Relativity, and ABL who are all developing rockets  
11 with double (and in many cases far more than double) Astra’s planned 500kg payload capacity.  
12 Astra not only failed to tell investors that it could only reach 500kg using the technology of a  
13 direct competitor, but also hid from investors that the agreement to use that technology left Astra  
14 at a marked competitive disadvantage.  
15

16 49. On September 21, 2021, *The Verge* published an article entitled, “Launch Startups  
17 Astra and Firefly ink secret rocket engine IP deal.” The article, based on “an internal Firefly  
18 document viewed by *The Verge* and a person briefed on the agreement,” stated that Astra signed  
19 the \$30 million deal with competitor Firefly earlier in the year, and further stated that Astra  
20 “declined the discuss the agreement.” *The Verge* article confirmed that Astra’s agreement with  
21 Firefly “includes a clause that aims to ensure Astra’s rocket doesn’t directly compete with  
22 Firefly’s Alpha.” Defendant Kemp refused to confirm the existence of the agreement, instead  
23 telling *The Verge*, “I can’t comment on any supplier agreements that we have, but I can tell you  
24 that we have said that all IP required to produce all of our technology will be owned by Astra,  
25 licensed by Astra, or developed by Astra.” The contents of *The Verge* article did not reach the  
26  
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28

1 market with sufficient intensity to inform investors of its existence, particularly given Defendant  
2 Kemp's refusal to confirm or deny the agreement or any of its details.

3  
4 50. Indeed, when asked directly about the Firefly relationship during Astra's earnings  
5 call for the third quarter of 2021 less than two months later, Defendant Kemp referred to *The*  
6 *Verge* article as "speculat[ion]" and once again refused to confirm the existence of the agreement.  
7 Instead, Defendant Kemp stated that, "we don't discuss how we manufacture things or our  
8 suppliers publicly, but what I can tell you and I will reiterate here, is that all intellectual property  
9 required to produce all of our technology will be owned, license, or developed by Astra and  
10 anything you've read, it is not inconsistent with this strategy." At no point did Defendant Kemp  
11 or any other Defendant reveal, either on the earnings call or in any subsequent public disclosure  
12 that the Firefly agreement limited Astra to, at maximum, a 500kg payload capacity.  
13

14 51. Multiple former employees of Astra corroborate that Defendants actively  
15 concealed the existence of the Firefly deal in order to preserve investor confidence in the  
16 Company's ability to build the most critical component in its rockets, *i.e.*, the engine. CW1 stated  
17 that rather than trying to improve on its existing rocket design, Astra struck a secret deal with  
18 Firefly to purchase the IP for its Reaver rocket so Astra could build rockets based on Firefly's  
19 design schematics.  
20

21 52. CW2 stated that the Company entered into the Firefly deal because it was "the  
22 best way to get a large engine fast." CW2 also confirmed the Company's secrecy, even  
23 internally, regarding the Firefly deal, explaining, "It's never cool to be a company that builds  
24 engines and then buys somebody else's engine...It's kind of embarrassing."  
25

26 53. CW4 also confirmed that Astra acquired Firefly to enable it to increase rocket  
27 payload from 300kg to 500kg. CW4 explained that Astra kept its decision to purchase IP from  
28

1 Firefly “strictly confidential” for fear of creating uncertainty and undermining confidence in  
 2 investors and the public.

3  
 4 54. Astra’s competitors still all have significantly larger payload capacities or  
 5 plausible plans to produce 1,000kg+ rockets in the near term. As CW3 confirmed, rockets in the  
 6 300-to-500kg range are therefore “not financially viable.”

7 **DEFENDANTS KNOWINGLY MISLEAD INVESTORS WITH BASELESS LAUNCH**  
 8 **PROJECTIONS**

9 55. At all relevant times, Defendants were long on promises but far short of reality-  
 10 based justifications for them. They touted a “\$1.0+ Trillion Total Space Economy in 2040,” citing  
 11 Morgan Stanley Research, an estimated “38+ thousand satellites to be built and launched over  
 12 2020-2029,” citing Wall Street Research Space Capital as well as “Euroconsult and Astra  
 13 Management estimates,” and a “\$1.2 billion pipeline in potential contracts in negotiation or early  
 14 discussions.” Having primed investors with that impressive backdrop, Defendants represented that  
 15 Astra would achieve a monthly launch cadence by 2022, a weekly launch cadence by 2023, and a  
 16 near daily launch cadence (300 rockets) in 2025.

17  
 18 56. Defendants advised investors of specific risk factors that could impede Astra’s  
 19 ability to achieve its “targeted annual launch rate.” Specifically, the risk factors” section of Astra’s  
 20 SEC filings specified that:

21 Our ability to achieve a more frequent than monthly launch capability by 2025 will  
 22 depend on our ability to add new launch sites .... We have in the past and may in  
 23 the future experience delays in our efforts to secure additional launch sites around  
 24 the globe. Challenges as a result of regulatory processes or in our ability to secure  
 the necessary permissions to establish these launch sites could delay ***our ability to  
 achieve our target cadence*** and could adversely affect our business.

25 \*\*\*

26 ***Our ability to achieve this increased launch cadence*** within the timeframe in  
 27 which we hope to do so will depend on our ability to secure the necessary regulatory  
 28 licenses from the FAA, the FCC and other regulatory authorities. To our



1 knowledge, the applicable regulatory authorities to date have not granted such  
 2 licenses to a company endeavoring to launch rockets with such frequency, and as a  
 3 result our business is dependent upon a regulatory framework that is untested and  
 4 unprecedented.

5 \*\*\*

6 Further, launch operations within restricted airspace requires advance scheduling  
 7 and coordination with government agencies and range owners and other users, and  
 8 any high priority national defense assets will have priority in the use of these  
 9 resources, ***which may impact our cadence of our launch operations***

10 \*\*\*

11 If we commercialize outside the United States, we will be exposed to a variety of  
 12 risks associated with international operations that could materially and adversely  
 13 affect our business .... (including) ***the need for U.S. government approval to  
 14 operate our space systems outside the United States***

15 \*\*\*

16 If our operations continue to grow as planned, of which there can be no assurance,  
 17 we will need to expand our sales and marketing, research and development,  
 18 customer and commercial strategy, products and services, supply, and  
 19 manufacturing and distribution functions. ***We will also need to continue to leverage  
 20 our manufacturing and operational systems and processes, and there is no  
 21 guarantee that we will be able to scale the business and the manufacture of  
 22 spacecraft as currently planned or within the planned timeframe.***

23 \*\*\*

24 Our continued growth could increase the strain on our resources, and we could  
 25 experience operating difficulties, including ... ***finding manufacturing capacity to  
 26 produce our launch vehicles, rockets, spacecraft, space products and related  
 27 equipment, and delays in production and launches.***

28 \*\*\*

***The market for commercial launch services for small LEO satellites is still  
 emerging, multiple mergers and acquisitions are shifting the market, and the  
 market may not achieve the growth potential we expect.***

57. Defendants' near daily launch cadence projection and related risk warnings misled  
 investors because Defendants knew at the time that they could not achieve a near daily launch  
 cadence by 2025 *whether or not the identified risk factors materialized.* Astra's total addressable

1 market did not and would not support 300 launches by 2025, once accounting for: 1) constellations  
2 with a committed launch provider; 2) satellites not launchable by a U.S. provider because of  
3 geopolitical and regulatory constraints; or 3) satellites that Astra could not lift given its limited  
4 payload capacity goal of only 500kg.  
5

6 58. Northern Sky Research (“NSR”), which is a satellite and space industry researcher  
7 and consultant, projects that in 2025 there will be 2,255 LEO satellite launches. *See Northern Sky*  
8 *Research, Global Satellite Manufacturing and Launch Markets*, 11<sup>th</sup> Edition, July 2021.  
9 According to the Report, however, SpaceX is forecast to launch 946 Starlink satellites (in 2020  
10 SpaceX launched 850 Starlink satellites to its own internet constellation). Even assuming that  
11 SpaceX only launches 90% of that number, or 851 satellites, that brings the total number of  
12 expected LEO satellite launches from 2,255 down to 1,404. Then, accounting for Chinese and  
13 Russian satellites launching from Asia and Europe, which U.S. based launch providers like Astra  
14 are prohibited from launching, removes another 817 satellites, bringing the total addressable  
15 market for expected LEO satellites in 2025 down to 587—less than 600. SpaceX has already  
16 proven that its rideshare rocket can accommodate 134 satellites *in a single launch*. Astra operates  
17 in a highly competitive space launch industry with many other companies, large and small,  
18 competing to launch the remaining 600 satellites, and as mandated by the Firefly deal, Astra is  
19 limited to a maximum payload capacity of 500kg, while its competitors can carry heavier payloads  
20 to LEO. Astra did not plan to have the capacity to carry payloads in excess of 500kg by 2025, thus  
21 removing larger satellites from the mix of satellites Astra could potentially launch in 2025. In  
22 other words, at the time Defendants issued their near daily launch cadence forecast, the total  
23  
24  
25  
26  
27  
28

1 addressable market did not, and would not, support 300 launches per year for a single small  
2 company with its limited capabilities.<sup>8</sup>

3  
4 59. CW4 confirmed that the Company's stated ambitions consistently conflicted with,  
5 and "painted a more rosy picture" than, reality. CW4 states that "there was no way" to reach the  
6 Company's near daily launch goals while concurrently developing new vehicles, which is what  
7 Astra was trying to do. CW5 pointed out that even industry leader SpaceX was barely launching  
8 more than once a week, and that was after 20 years. CW4 and other members of the Propulsion  
9 Department voiced concerns to Astra leadership, but those concerns fell on deaf ears.

10  
11 60. According to CW4, the projected number of launches by 2025 was a point of  
12 contention and there was pushback on that projection internally. Astra portrayed its progress as  
13 two-fold: ramping up production while simultaneously developing a new launch vehicle, but did  
14 not have a plan in place to accomplish what it promised. CW4 made clear that "the propulsion  
15 team knew there was no way to conduct 300 launches by 2025 while concurrently developing new  
16 vehicles," and tried to communicate as such to Astra leadership. Indeed, as CW4 explained, even  
17 SpaceX only managed one launch a week and that was twenty years in the making. Astra's senior  
18 executives, including Defendant Kemp, did not heed the propulsion team's concerns, according to  
19 CW4, because the Company found itself in survival mode following a disastrous 2020 marked by  
20 layoffs and vocal concerns about the Company's stability. CW4 stated that everyone at Astra  
21 "recognized the daily launch services part of Astra's model was ridiculous," particularly given the  
22

23  
24 <sup>8</sup> Further demonstrating that Defendants knew at the time they issued their misstatements that they could not  
25 accomplish their 2025 near daily launch cadence forecast, Defendants admitted to the market in an earnings  
26 presentation on August 4, 2022 (attached to a Form 8-K filed with the SEC) that the 500kg maximum payload capacity  
27 to which they were limited by the Firefly agreement (a limitation they never revealed to the market), only allowed  
28 Astra *to compete for* (but not necessarily obtain) 45% of the total addressable market of *smallsats*. Defendants  
therefore announced that they had to scrap the rocket line for which they targeted the 500kg payload capacity and  
develop a new rocket line capable of attaining a 600kg payload capacity (though Defendants provided no detail as to  
how they obtained the capability to increase their payload capacity goal by 20%), thus purportedly allowing Astra to  
compete for 75% of the total addressable market.

1 early failures with Rocket 3 launches in 2021. As CW4 put it, Astra's stated ambitions exceeded  
2 reality.

3  
4 61. CW5 confirmed that internally everyone knew the near daily launch cadence  
5 projection was an unreasonable "farfetched" goal particularly given that Astra did not have  
6 adequate production systems in place to facilitate the type of mass production and deployment  
7 Defendants promised.

8 **FALSE AND MISLEADING STATEMENTS IN THE DEFECTIVE PROXY**  
9 **STATEMENT**

10 62. On June 7, 2021, Holicity issued a press release announcing that the SEC declared  
11 its Registration Statement on Form S-4 relating to the Reverse Merger effective on June 4, 2021,  
12 and further stated that it has "commenced mailing the definitive proxy statement/prospectus...".  
13 The press release identified those individuals "deemed to be participants in the solicitation of  
14 proxies":  
15

16 The Company and its directors and executive officers may be deemed participants  
17 in the solicitation of proxies from the Company's stockholders with respect to the  
18 Business Combination. A list of the names of those directors and executive officers  
19 and a description of their interests in the Company is contained in the Company's  
20 registration statement on Form S-1, which was initially filed with the SEC on July  
21 17, 2020...

22 \*\*\*

23 Astra and its directors and executive officers may also be deemed to be participants  
24 in the solicitation of proxies from the stockholders of the Company in connection  
25 with the Business Combination. A list of the names of such directors and executive  
26 officers and information regarding their interests in the Business Combination is  
27 contained in the Registration Statement.<sup>9</sup>

28 63. The Company filed a copy of the proxy statement/prospectus, which was included  
in the Registration Statement and sent to Holicity's stockholders, with the SEC on June 8, 2021

---

<sup>9</sup> Collectively, the participants in the solicitation of proxies according to the Form S-1 and Registration Statement are the Proxy Defendants.

1 (“Defective Proxy Statement”). The Defective Proxy Statement contained untrue statements of  
2 material fact and omitted to state other facts necessary to make the statements not misleading  
3 under the circumstances in which they were made.  
4

5 64. The Defective Proxy Statement falsely represented that Astra would achieve a  
6 daily launch cadence by 2025:

7 Upon ramping up operations, Astra will be able to deliver launches on an almost-  
8 daily basis, which is significantly more frequent than any of its peers’ capabilities.

9 \*\*\*

10 Astra has a competitively differentiated market offering for its customers centered  
11 around its rapid cadence of launches, bespoke range of orbital destinations, global  
12 scale and affordability. Upon ramping up operations, Astra will be able to deliver  
13 launches on an almost-daily basis, which is significantly more than any of its  
14 peers’ capabilities.

15 \*\*\*

16 We aim to achieve a monthly launch cadence by the end of 2021 and approach a  
17 daily launch cadence by the end of 2025.

18 \*\*\*

19 We are on track to begin commercial launch operations in 2021, with a goal of  
20 reaching a once-daily launch cadence by the end of 2025.

21 65. The foregoing statements were materially false and misleading when made  
22 because Defendants negligently failed to disclose that Astra would not have a large enough total  
23 addressable market to conduct daily launches by 2025 after taking into account constellations  
24 with a committed launch provider, satellites not relevant to a U.S. provider because of  
25 geopolitical and regulatory constraints, and satellites that Astra could not lift even with its  
26 planned 500kg payload capacity.

27 66. The Defective Proxy Statement also included “risk factors” purporting to identify  
28 the only potential impediments to Astra achieving a daily launch cadence by 2025:

1 Our ability to achieve a near-daily launch cadence by 2025 will depend on our  
2 ability to add new launch sites... We have in the past and may in the future  
3 experience delays in our efforts to secure additional launch sites around the globe.  
4 Challenges as a result of regulatory processes or in our ability to secure the  
5 necessary permissions to establish these launch sites could delay ***our ability to***  
6 ***achieve our target cadence*** and could adversely affect our business.

7 \*\*\*

8 ***Our ability to achieve this increased launch cadence*** within the timeframe in  
9 which we hope to do so will depend on our ability to secure the necessary regulatory  
10 licenses from the FAA, the FCC and other regulatory authorities. To our  
11 knowledge, the applicable regulatory authorities to date have not granted such  
12 licenses to a company endeavoring to launch rockets with such frequency, and as a  
13 result our business is dependent upon a regulatory framework that is untested and  
14 unprecedented.

15 \*\*\*

16 Further, launch operations within restricted airspace requires advance scheduling  
17 and coordination with government agencies and range owners and other users, and  
18 any high priority national defense assets will have priority in the use of these  
19 resources, ***which may impact our cadence of our launch operations...***

20 67. The foregoing risk factors misled investors because Defendants negligently failed  
21 to disclose, based on a duty triggered by issuing their risk warnings, an additional risk that had  
22 already materialized, that Astra could not achieve daily launch cadence by 2025 because the  
23 Company did not have a large enough total addressable market to conduct daily launches by 2025  
24 after taking into account constellations with a committed launch provider, satellites not relevant  
25 to a U.S. provider because of geopolitical and regulatory constraints, and satellites that Astra  
26 could not lift even with its planned 500kg payload capacity.

27 68. The Defective Proxy Statement also represented that Astra would increase its  
28 payload capacity to 500kg by 2023 and set forth precisely how Astra intended to do so:

As part of our strategy, we plan to increase the maximum payload capacity of our  
rocket from approximately 50 kg in 2021 to up to 500 kg for a mid-inclination 500  
km orbit by late 2023, which would make us a more compelling alternative for Big  
LEO constellation deployment and satellite replenishment. This payload capacity

1 improvement will come from numerous improvements, enhancements and  
2 modifications to our rocket.

3 \*\*\*

4 We plan to increase the maximum payload capability of our rocket from  
5 approximately 50 kg in 2021 to up to 500 kg for a mid-inclination 500 km orbit  
6 by late 2023, through a process of iterative development and improvement.

69. The foregoing statement misled investors because the Proxy Defendants  
7 negligently failed to reveal that: 1) they could only achieve a 500kg payload capacity by entering  
8 into an IP agreement with direct competitor Firefly; and 2) that Astra had no choice but to cap  
9 its payload capacity goal at 500kg because the Firefly agreement prohibited Astra from  
10 increasing its payload capacity beyond 500kg using Firefly's IP, thus precluding Astra from  
11 meaningfully competing with other small launch companies (like Firefly) developing rockets  
12 with much higher payload capacities.  
13

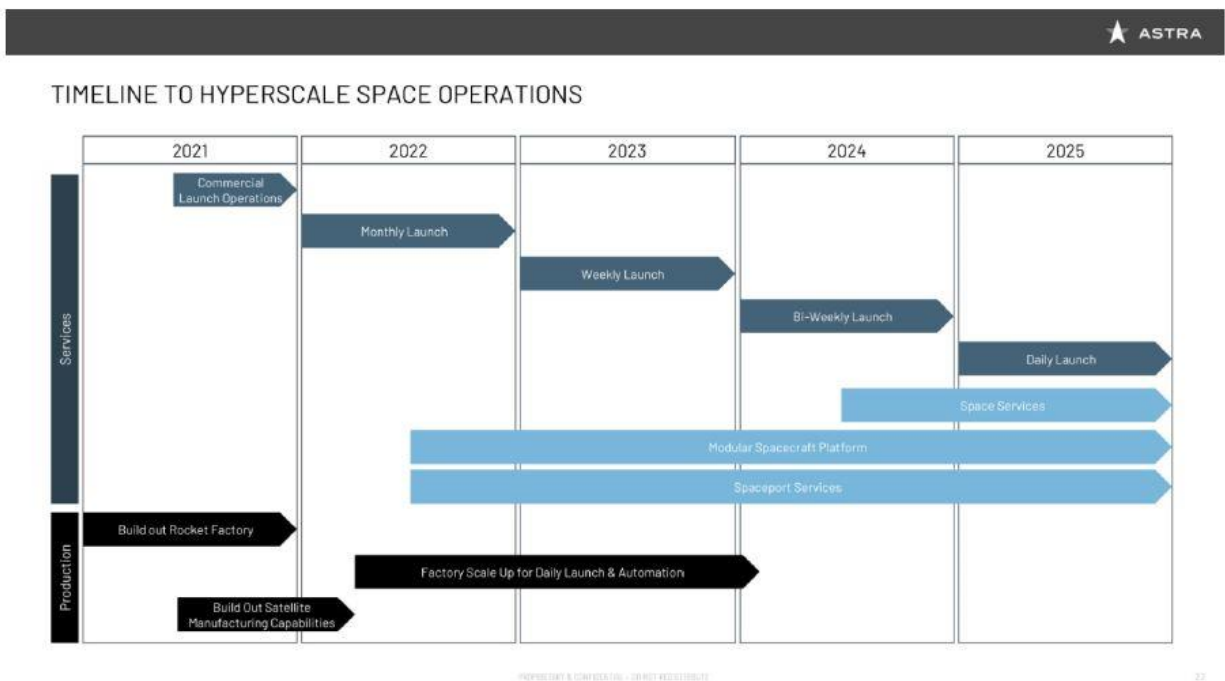
14 **THE 10(b) DEFENDANTS' MATERIALLY FALSE AND MISLEADING STATEMENTS**

15 70. On February 2, 2021, the Company filed with the SEC a Form 8-K (the "February  
16 2, 2021 8-K") signed by Defendant Ednie which attached a press release dated February 2, 2021  
17 entitled "Astra to become the first publicly traded space launch company on NASDAQ via merger  
18 with Holicity" which announced the merger between Astra (the "Merger Announcement Press  
19 Release"). The Merger Announcement Press Release stated the following, in pertinent part,  
20 regarding Astra Space Inc.: "This transaction takes us a step closer to our mission of improving  
21 life on Earth from space by fully funding our plan *to provide daily access* to low Earth orbit from  
22 anywhere on the planet," said Chris Kemp, Founder, Chairman and CEO of Astra." (Emphasis  
23 added.). Astra further represented that "Astra will begin delivering customer payloads this summer  
24 and begin monthly launches by the end of this year."  
25  
26  
27  
28

71. The foregoing statements misled investors because Defendants knew but failed to disclose that Astra did not have a large enough total addressable market to justify representations that it would “provide daily access” to space after taking into account constellations with a committed launch provider, satellites not relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that Astra could not lift even with its planned 500kg payload capacity. *See ¶ 58, supra.*

72. The February 2, 2021 8-K also attached an investor presentation (the “Investor Presentation”) which included slides touting Astra’s launch cadence timeline and a massive addressable market and pipeline.

73. In slide 27 of the Investor Presentation, Defendants set forth a projected timeline for achieving daily launches by 2025:



74. The foregoing slide misled investors because the addressable market does not support 300 launches per year for a single small company with limited capabilities like Astra.



1 Defendants knew but failed to disclose that Astra did not have a large enough total addressable  
2 market to justify representations that it would “provide daily access” to space after taking into  
3 account constellations with a committed launch provider, satellites not relevant to a U.S. provider  
4 because of geopolitical and regulatory constraints, and satellites that Astra could not lift even  
5 with its planned 500kg payload capacity. *See ¶ 58, supra.*

7 75. On February 25, 2021, Bloomberg TV issued a report including excerpts of an  
8 interview with Defendant Kemp regarding Astra’s merger with Holicity. The following day, Astra  
9 filed a Form 8-K attaching a transcript of that interview. Therein, Defendant Kemp stated in  
10 relevant part:

11  
12 Over the next few years here at this facility, we’ll be increasing the production rate  
13 of rockets from monthly this year to weekly in 2023, to bi-weekly in 2024, to a full  
14 daily production rate in 2025. And by **launching a rocket a day**, we’ll be able to  
bring the price point down to about a half a million dollars.

15 Emphasis added.

16 76. The foregoing statements misled investors because Defendants knew that Astra  
17 could not achieve daily launches by 2025 given the size of its total addressable market after taking  
18 into account constellations with a committed launch provider, satellites not relevant to a U.S.  
19 provider because of geopolitical and regulatory constraints, and satellites that Astra could not lift  
20 even with its planned 500kg payload capacity. *See ¶ 58, supra.*

21 77. In a SpaceNews article published on March 1, 2021, entitled “Astra’s 100-year  
22 plan: Q&A with CEO Chris Kemp,” Defendant Kemp repeated his baseless launch cadence  
23 projections, stating in relevant part:

24  
25 In 2025, we hope to be hitting our **daily launch cadence** with a vehicle that can  
26 throw about 300 kilograms to a reference orbit. Ultimately, that means we can  
27 meet the needs of all these megaconstellations like Kuiper. The target for the  
company is being a megaconstellation provider.

28 Emphasis added.

1           78.     The SpaceNews interviewer asked Defendant Kemp how Astra planned to achieve  
 2     “300 launches a year in 2025, which would be nearly three times the number of launches  
 3     worldwide last year.” To convince the market as to the achievability of this lofty goal, Defendant  
 4     Kemp responded:

5           We need to have a high level of automation, so at the foundation of our platform is  
 6     software. We had at our first launch of 1.0 about 30 people in Kodiak. In our 2.0  
 7     launch, we had about 15 people. In our 3.0 launches, we got it down to five. We  
 8     now can take the entire spaceport, as we demonstrated with the DARPA Launch  
 9     Challenge, pack it up into four shipping containers, unpack it, and launch the rocket  
 10    with five people. We’re never going to go to a government spaceport.

11          79.     Defendant Kemp’s statements to SpaceNews regarding Astra’s ability to achieve a  
 12    daily launch cadence by 2025 misled investors because Defendants knowingly or recklessly failed  
 13    to disclose that Astra did not have a large enough addressable market to conduct daily launches by  
 14    2025 after taking into account constellations with a committed launch provider, satellites not  
 15    relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that  
 16    Astra could not lift even with its planned 500kg payload capacity. *See ¶ 58, supra.*

17          80.     On April 14, 2021, Astra hosted a virtual Analyst Day with presentations by, *inter*  
 18    *alia*, Defendants Kemp and Brannon. Speaking to Astra’s timeline for launch cadence through  
 19    2025 and its ability to add additional in-space sources of revenue, Defendant Kemp stated in  
 20    relevant part:

21           So as we begin commercial launch operations this summer, we’ll start to scale to  
 22    monthly launch, and ***we plan to begin monthly launch operations leading to***  
 23    ***weekly, bi-weekly, and then daily launch operations in 2025.*** While we’re  
 24    launching, we’re going to be adding capabilities. We’re going to be building the  
 25    rocket factory out. We’re going to be building the capability to begin constructing  
 26    and launching satellites and spacecraft.

27          81.     The foregoing statements misled investors because Defendants knowingly failed  
 28    to disclose that Astra did not have a large enough addressable market to conduct daily launches  
 by 2025 after taking into account constellations with a committed launch provider, satellites not

relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that Astra could not lift even with its planned 500kg payload capacity. *See* ¶ 58, *supra*.

82. On May 19, 2021, Astra issued a press release entitled, “Astra Announces Multi-Launch Contract with Planet,” which stated in relevant part:

Astra also shared plans to launch payloads up to 500kg to a 500 km, mid-inclination (50 degree) orbit. This capability expands the services Astra can deliver for mega constellations, small satellite companies, and government agencies.

83. The foregoing statement misled investors because Defendants failed to reveal that: 1) they could only achieve a 500kg payload capacity by entering into an IP agreement with direct competitor Firefly; and 2) that Astra had no choice but to cap its payload capacity goal at 500kg because the Firefly agreement prohibited Astra from increasing its payload capacity beyond 500kg using Firefly’s IP, thus precluding Astra from meaningfully competing with other small launch companies (like Firefly) developing rockets with much higher payload capacities.

84. On June 23, 2021, Astra filed a Form 8-K with the SEC attaching the transcript of an “Astra Fireside Chat with IPO Edge,” and the slide presentation that accompanied the interview. Therein, Defendants Kemp and Brannon reiterated representations that Astra would achieve daily launches by 2025, and made clear that this is “one of the big differences between Astra and our competitors:”

That will provide to customers I think at some point there’s an inflection point where, if we start to reach ***daily space delivery, which is our goal in 2025*** it changes the entire market because, instead of having to book a year in advance you can think about getting to space, so much the same way you think about booking a commercial airline ticket and I think that that will create more investment and more opportunity in the marketplace then then we’re even seeing today.

Now, one of the big differences between astra and our competitors is since day one we’ve always believed in the idea of ***daily space delivery***, we believed in this market and we’ve made the investments.

1           85.     Later on in the interview Defendant Kemp described the rationale underlying the  
2 representation that Astra would launch daily by 2025, comparing Astra's small launchers to small  
3 aircraft taking off daily "on the ground":  
4

5           Hundreds of companies all want to go on different schedules to different places and  
6 space isn't one destination. And I think that's a big part of it, also the mega  
7 constellations they're not just in one place. There in a lot of different orbital planes  
8 they're built out over time they're different altitudes each of those is another launch  
9 opportunity.

10           And so, as this market grows, you know, for every Airbus 3D that takes off or triple  
11 seven that takes off at the airport, how many small aircraft take off.

12           For every container ship that pulls up at the port, how many trucks pickup those  
13 containers and deliver them. We're building the truck you know we're building the  
14 commuter jet I think if you believe in space you've got to believe that that that same  
15 the same dynamics that you see here in logistics on the ground apply.

16           86.     The foregoing statements misled investors because Defendants knew but failed to  
17 disclose that Astra did not have a large enough addressable market to conduct daily launches by  
18 2025 after taking into account constellations with a committed launch provider, satellites not  
19 relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that  
20 Astra could not lift even with its planned 500kg payload capacity. *See ¶ 58, supra.*

21           87.     On August 13, 2021, Astra filed a Form 10-Q for the second quarter ended June 30,  
22 2021 ("2Q21 10-Q"), signed by Defendants Kemp and Brannon, wherein reiterated that

23           Our rocket requires a launch site with little more than a concrete pad and only six  
24 Astra employees on-site, leveraging our highly automated launch operations, and  
25 our production system is designed to scale efficiently to ***hundreds of launches per***  
26 ***year.***

27 (Emphasis added.)

28           88.     The foregoing statements misled investors because Defendants knew but failed to  
disclose that Astra did not have a large enough addressable market to conduct daily launches by  
2025 after taking into account constellations with a committed launch provider, satellites not

relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that Astra could not lift even with its planned 500kg payload capacity. *See* ¶ 58, *supra*.

89. Moreover, Defendants included “risk factors” in the August 13, 2021, 2Q21 10-Q, and adopted the 2Q21 10-Q risk factors in the November 15, 2021, Q321 10-Q (filed on November 15, 2021, and which also repeated the misrepresentation set forth in ¶ 88), with both documents purporting to identify the only potential risks to Astra achieving a daily launch cadence by 2025:

Our ability to achieve a near-daily launch cadence by 2025 will depend on our ability to add new launch sites... We have in the past and may in the future experience delays in our efforts to secure additional launch sites around the globe. Challenges as a result of regulatory processes or in our ability to secure the necessary permissions to establish these launch sites could delay ***our ability to achieve our target cadence*** and could adversely affect our business.

\*\*\*

***Our ability to achieve this increased launch cadence*** within the timeframe in which we hope to do so will depend on our ability to secure the necessary regulatory licenses from the FAA, the FCC and other regulatory authorities. To our knowledge, the applicable regulatory authorities to date have not granted such licenses to a company endeavoring to launch rockets with such frequency, and as a result our business is dependent upon a regulatory framework that is untested and unprecedented.

\*\*\*

Further, launch operations within restricted airspace requires advance scheduling and coordination with government agencies and range owners and other users, and any high priority national defense assets will have priority in the use of these resources, ***which may impact our cadence of our launch operations***

\*\*\*

If we commercialize outside the United States, we will be exposed to a variety of risks associated with international operations that could materially and adversely affect our business .... (including) ***the need for U.S. government approval to operate our space systems outside the United States***

\*\*\*

If our operations continue to grow as planned, of which there can be no assurance, we will need to expand our sales and marketing, research and development, customer and commercial strategy, products and services, supply, and manufacturing and distribution functions. ***We will also need to continue to leverage our manufacturing and operational systems and processes, and there is no guarantee that we will be able to scale the business and the manufacture of spacecraft as currently planned or within the planned timeframe.***

\*\*\*

Our continued growth could increase the strain on our resources, and we could experience operating difficulties, including ... ***finding manufacturing capacity to produce our launch vehicles, rockets, spacecraft, space products and related equipment, and delays in production and launches.***

\*\*\*

***The market for commercial launch services for small LEO satellites is still emerging, multiple mergers and acquisitions are shifting the market, and the market may not achieve the growth potential we expect.***

90. The foregoing risk factors misled investors because Defendants knowingly or recklessly failed in their duty, triggered by their risk disclosures, to disclose an additional risk which had already materialized, that Astra could not achieve daily launch cadence by 2025, *i.e.*, that the Company did not have a large enough addressable market to conduct daily launches by 2025 after taking into account constellations with a committed launch provider, satellites not relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that Astra could not lift even with its planned 500kg payload capacity. *See ¶ 58, supra.*

91. Defendants further stated in the 2Q21 10-Q that:

As part of our strategy, we plan to increase the maximum payload capability of our rockets from approximately 50 kg for our first commercial flight to up to 500 kg for a mid-inclination 500 km orbit, which we believe will make Astra a compelling option for low Earth orbit constellation deployment and replenishment.

92. The foregoing statement misled investors because Defendants knowingly or recklessly failed to reveal that: 1) they could only achieve a 500kg payload capacity by entering into an IP agreement with direct competitor Firefly; and 2) that Astra had no choice but to cap

1 its payload capacity goal at 500kg because the Firefly agreement prohibited Astra from  
2 increasing its payload capacity beyond 500kg using Firefly's IP, thus precluding Astra from  
3 meaningfully competing with other small launch companies (like Firefly) developing rockets  
4 with much higher payload capacities.  
5

6 93. On October 22, 2021, the Company filed with the SEC an amended quarterly report  
7 for the period ended June 30, 2021 (the "Amendment") signed by Defendants Kemp and Brannon.  
8 Attached to the Amendment were certifications pursuant to the Sarbanes-Oxley Act of 2002  
9 ("SOX") signed by Defendants Kemp and Brannon attesting to the accuracy of financial reporting,  
10 the disclosure of any material changes to the Company's internal control over financial reporting  
11 and the disclosure of all fraud.  
12

13 94. The Amendment reiterated Defendants' representation regarding Astra's ability to  
14 hit a cadence of, "*hundreds of launches per year*," and repeated the risk factors Defendants  
15 identified as potential obstacles to hitting that cadence. (Emphasis added.)  
16

17 95. The foregoing statements misled investors because Defendants knew but failed to  
18 disclose that Astra did not have a large enough addressable market to conduct daily launches by  
19 2025 after taking into account constellations with a committed launch provider, satellites not  
20 relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that  
21 Astra could not lift even with its planned 500kg payload capacity. *See* ¶ 58, *supra*.  
22

23 96. Defendants further stated in the Amendment that:

24 As part of our strategy, we plan to increase the maximum payload capability of our  
25 rockets from approximately 50 kg for our first commercial flight to up to 500 kg  
26 for a mid-inclination 500 km orbit, which we believe will make Astra a compelling  
27 option for low Earth orbit constellation deployment and replenishment.  
28

97. The foregoing statement misled investors because Defendants failed to reveal that:  
1) they could only achieve a 500kg payload capacity by entering into an IP agreement with direct

competitor Firefly; and 2) that Astra had no choice but to cap its payload capacity goal at 500kg because the Firefly agreement prohibited Astra from increasing its payload capacity beyond 500kg using Firefly's IP, thus precluding Astra from meaningfully competing with other small launch companies (like Firefly) developing rockets with much higher payload capacities.

98. On November 11, 2021, Astra issued a press release attached to a Form 8-K signed by Defendant Brannon, announcing its quarterly results for the third quarter ended September 30, 2021, wherein Defendant Brannon stated that "Astra continues to move forward on its goal of daily launches."

99. The foregoing statements misled investors because Astra did not have a large enough addressable market to conduct daily launches by 2025 after taking into account constellations with a committed launch provider, satellites not relevant to a U.S. provider because of geopolitical and regulatory constraints, and satellites that Astra could not lift even with its planned 500kg payload capacity. *See ¶ 58, supra.*

100. During the Company's third quarter earnings call that day, when directly asked about "the Firefly relationship," Defendant Kemp refused to confirm the existence of the agreement or disclose that a limitation on the use of Firefly's engines forced Astra to cap its payload capacity goal at 500kg, instead stating in relevant part:

So then finally, the question on the supplier. I think there were some articles online *speculating* a supplier. And I think I've discussed before, *we don't discuss how we manufacture things or our suppliers publicly*. But what I can tell you, and I will reiterate here, is that all intellectual property required to produce all of our technology will be owned, licensed or developed by Astra. And anything you've read is not inconsistent with this strategy. So I think that's all I can say about that at this point.

Emphasis added.



1           101. The foregoing statements misled investors because: 1) Defendant Kemp failed to  
2 confirm the existence of the Firefly deal; 2) failed to reveal that Astra could only achieve a 500kg  
3 payload capacity by entering into an IP agreement with direct competitor Firefly; and 2) that Astra  
4 had no choice but to cap its payload capacity goal at 500kg because the Firefly agreement  
5 prohibited Astra from increasing its payload capacity beyond 500kg using Firefly's IP, thus  
6 precluding Astra from meaningfully competing with other small launch companies (like Firefly)  
7 developing rockets with much higher payload capacities.  
8

9           102. On November 15, 2021, the Company filed with the SEC its 3Q21 10-Q signed by  
10 Defendants Kemp and Brannon. Attached to the 3Q21 Report were certifications pursuant to SOX  
11 signed by Defendants Kemp and Brannon attesting to the accuracy of financial reporting, the  
12 disclosure of any material changes to the Company's internal control over financial reporting and  
13 the disclosure of all fraud.  
14

15           103. Defendants further stated in the 3Q21 10-Q that:

16           As part of our strategy, we plan to increase the maximum payload capability of our  
17 rockets from approximately 50 kg for our first commercial flight to up to 500 kg  
18 for a mid-inclination 500 km orbit, which we believe will make Astra a compelling  
option for low Earth orbit constellation deployment and replenishment.

19           104. The foregoing statement misled investors because Defendants failed to reveal  
20 that: 1) they could only achieve a 500kg payload capacity by entering into an IP agreement with  
21 direct competitor Firefly; and 2) that Astra had no choice but to cap its payload capacity goal at  
22 500kg because the Firefly agreement prohibited Astra from increasing its payload capacity  
23 beyond 500kg using Firefly's IP, thus precluding Astra from meaningfully competing with other  
24 small launch companies (like Firefly) developing rockets with much higher payload capacities.  
25  
26  
27  
28

## THE TRUTH EMERGES

105. On December 29, 2021, during market hours, market researcher Kerrisdale Capital<sup>10</sup> released a report entitled “Astra Space, Inc (ASTR): Headed for Dis-Astra” (the “Report”) which revealed to Astra’s investors for the first time that Astra could not increase payload capacity to 500kg without entering into a secret IP agreement with Firefly, had to cap its payload capacity goal at 500kg as a result of that agreement, that its payload capacity is still undersize at 500kg as compared to its competitors, and that it cannot in fact achieve daily launches by 2025 based on its total addressable market. The Report based its conclusions on analyses not previously done by any other market participant and a “range of interviews with key industry players,” and states that Kerrisdale obtained the information contained in the Report from “accurate and reliable” sources.

106. Moreover, the Report revealed for the first time that Astra’s 300 launches per year by 2025 projection had no basis in reality and that its total addressable market did not provide for close to that number of launches. Specifically, the Report stated in relevant part:

Astra’s investor pitch boils down to selling the pipedream of an unprecedented number of cheap rocket launches. *Astra’s forecast calls for 300 launches per year by 2025, a whopping 10x more than SpaceX achieved in 2021. Management markets this exceptionally aspirational goal (which we view as pure fantasy) in a bid to spread its expensive Bay Area manufacturing costs over enough rockets in order to turn a profit.* A reality check is in order: To date, Astra has managed just one successful orbital test flight. *If Astra’s five-year projection of almost daily successful launches of rockets made with non-aerospace grade parts does not sound improbable enough, it ignores an even graver problem with Astra’s projection – not one expert whom we interviewed, nor any independent market study we reviewed, offered any reason to think that, industry-wide, sufficient market demand will exist for Astra to sustain approximately daily launches by 2035, let alone 2025.*

\* \* \*

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<sup>10</sup> Kerrisdale Capital is an investment management firm. It’s only three employees are Sahm Adrangi, the Chief Investment Officers, Edward Gu, the Chief Financial Officer, and Peter Baer, Head of Marketing & Investor Relations. <https://www.kerrisdalecap.com/>.

## Financial Projections Rely on Absurd Market Assumptions

Astra's financial forecasts rely on launching an astounding 165 rockets by 2024 and 300 rockets by 2025. *To put these figures in context, 300 launches is 10x the total number of US commercial launches in 2022. 300 is nearly triple the total number of launches conducted globally in 2020.* Incredibly, despite the obvious engineering, manufacturing, logistical, and regulatory challenges hitting such a cadence would represent, Astra felt it appropriate to issue this outlook before successfully reaching orbit even once.

### *Planned Daily Launch Cadence Far Exceeds Addressable Market*

... Astra touted big picture themes like "\$1 trillion+ Total Space Economy in 2040" (from Morgan Stanley), and a misleading slide that shows a large increase in the cumulative number of satellites to be launched in the coming years, but without specifying Astra's niche role in this economy and the true addressability for a rocket with only a 500kg payload capability (eventually). It's a significant red flag with a simple explanation: every legitimate market study that Astra could include would only show its projections to be laughably unrealistic – so Astra just left them out.

107. Conducting an analysis that no other market participant had done previously, the Report breaks down precisely how Astra's total addressable market cannot support 300 launches a year by 2025:

Below we walk through an analysis to determine a more refined view of the market opportunity for Astra as it strives to establish daily launch in 2025. We begin with NSR's estimate of the total number of non-GEO satellites to be launched in 2025 (2,255). We then apply two simple filters: 1) we exclude 90% or 851 of NSR's North American communications satellites forecast to account for Starlink (SpaceX launched 850 Starlink satellites in 2020), 2) we deduct 90% of satellites from Asia and 20% from Europe based on the contribution to these regions from Chinese and Russian satellites.

### Astra 2025E Launch TAM

	<u>2025E</u>
Total Non-GEO Satellite Launches	2,255
Less: NA Communications	(851)
Less: 90% Asia (China)	(792)
Less: 20% of Europe (Russia)	(25)
Total Addressable Non-GEO Satellites	<u>587</u>

*Source: Kerrisdale analysis and Northern Sky Research, Global Satellite Manufacturing and Launch Markets 11<sup>th</sup> Edition, July 2021.*

At less than 600 satellites, the entire non-captive TAM for launch is easily supported by less than 100 total launches. SpaceX rideshare recently set a record for 134 satellites on a single mission.

108. Moreover, the Report cites to expert statements establishing that Astra's daily launch projection is an outright falsity.

*Juxtapose a potential addressable market of less than 100 launches in aggregate, with Astra's projection of conducting 300 launches themselves when there are dozens of competitors, and one can see why our conversations with a range of industry participants yielded the following comments regarding Astra's plans:*

*"I laugh at that number...There's no way they are doing 300 launches by 2025; by 2035 it would still be a stretch."*

— Senior Engineer, launch broker

*"We are, all around in the industry, in the same spot. Even within Astra and at [our small launch company], I'm looking at [1/10th Astra's number] rockets, and we are freaking out – are we really going to have enough customers for this?"*

— Senior Engineer, small launch provider

*"Happy they got to orbit on last launch a few weeks ago, that's great, but there's just a lot of issues with their rocket and their business model...claims of launching every day? It's pretty exciting when a launch provider can launch once a month – and sure, everyone would love for rockets to be like airplanes – that's not going to happen for at least another decade. So yes, I have some serious concerns about Astra's claims."*

— Mission Manager for a broadband mega-constellation

1 ... We believe there will always be some level of interest in a service that can  
 2 regularly/flexibly bring a handful of smallsats to a specific orbital location, even at  
 3 a premium price to rideshares – but that is a niche offering in a highly competitive  
 4 field. ***It is not an addressable market that comes anywhere near supporting 300  
 launches per year for a single company with Astra’s limited capabilities.***

5 Emphasis added.

6 109. The Report further explained that Astra’s total addressable market is further  
 7 impacted by many new entrants to the small launch industry, rideshare services, reusable  
 8 launchers—all offering affordable alternatives to Astra’s rocket, which Defendants touted as  
 9 offering a “lower cost” as compared to its competitors throughout the Class Period. Specifically,  
 10 the Report states in relevant part:

11 This is because ***while satellite volumes are increasing, launch pricing is under  
 12 constant deflationary pressure*** (the latter is enabling the former).

13 ***Competition from new entrants and from larger rideshare players lowering price,  
 14 cost efficiencies from reusable launchers, and improvements in technology and  
 15 operations all conspire to exert downward pressure on price.*** Taken together, we  
 16 estimate a total launch market value that averages ~\$13bn per year over the next  
 17 several years, with a whopping 85% accounted for in constellations, where larger  
 launch vehicles enjoy economies of scale, leaving an annual TAM for a small  
 launcher like Astra in the \$~2 billion dollar range.

18 Astra’s 2025E launch revenue forecast of \$1.125bn assumes it can hold ASP  
 19 constant at \$3.75m and rise in 4 years to become the dominant player in the small  
 20 launch market. Either NSR is too pessimistic (which anyone who has followed the  
 21 industry knows is not usually how industry projections work) or, as we would  
 22 contend, the projections of a new space SPAC, announced at the height of the  
 bubble (two days before Virgin Galactic hit its all-time high of \$62) is complete  
 fantasy.

23 ***Without High Launch Cadence, Astra’s Business Model Falls Apart***

24 ***... The problem lies in the unit economics of launch....***

25 \* \* \*

26 ***Investors should be asking whether Astra devised a launch cadence to meet  
 27 market demand or to merely solve for the inherent weaknesses in its business  
 28 model?*** Our research, supported by a range of interviews with key industry players,

point strongly to the latter. *Astra took full advantage of the lack of scrutiny SPACs enjoyed earlier this year relative to traditional IPOs, passed off a launch cadence without any supporting market demand*, and sold equity in a bubble that has now burst. As a launch services broker with direct insight into market trends on a global basis described, “we get it, it was a cash grab...but how are you not going to squander all this money? Astra is all show and it’s not clear where they’re going to go aside from just building a bunch of stuff.”

Emphasis added.

110. Moreover, the Report made clear that Astra’s rocket is undersized and cannot compete with the 1,000kg + payload capacities of its competitors and their ability to reuse their rockets, an ability Astra does not have because it uses cheap off the shelf components:

*Its main competitors will soon be launching larger 1,000kg+ payload rockets while Astra has yet to overcome developmental hurdles necessary to successfully launch even a single satellite into any of the emerging broadband mega-constellations.*

\*\*\*

Moreover, Astra shortsightedly relies on cheap, off-the-shelf commercial parts – a strategy that precludes it from exploiting the economic advantages that its more sophisticated competitors enjoy by developing reusable rockets that in the long run reduce expenses. Consequently, Astra remains strikingly vulnerable to the relentless price deflation that characterizes today’s launch market.

\* \* \*

Not only is the overall addressable market Astra has promoted vastly overstated – Astra’s development path is on the wrong side of key trends within the industry: *larger payloads and reusability.*

Most of the increase in mass-to-orbit in the coming decade will be as part of large broadband constellations. According to NSR, nearly 80% of all non-GEO satellites from now until the end of the decade will be part of constellations of communications smallsats. Smallsat manufacturers are taking advantage of declining launch costs to build larger, more *sophisticated constellations of satellites which generally have more mass than previous iterations.*

\* \* \*

At the time of the SPAC announcement 10 months ago, Astra’s stated goal was a 300kg payload to 500km Sun-Synchronous Orbit by 2023. By 2025, it hoped a vehicle that can “throw about 300 kilograms to a reference orbit” would be



1 launched daily. Only 3 months later however, in conjunction with the Planet launch  
 2 agreement, Astra announced a new goal: 500kg to 500km LEO. Why the sudden  
 3 change? Because *according to experts in the industry, management likely knew*  
 4 *that to make good on claims that Astra could “meet the needs of all these mega-*  
*constellations like Kuiper”, it needed a rocket with more than just a 300kg*  
*payload.*

5 *Announcing a 66% jump in payload capacity is not a trivial matter in rocket*  
 6 *development.* It involves meaningful redesign work with new components and a  
 7 more powerful engine – one that apparently Astra did not have. As a sign of Astra’s  
 8 unpreparedness, four months after the new 500kg objective, *Astra signed a*  
 9 *“secret” deal to purchase the IP for an engine powerful enough to launch this*  
 10 *new 500kg payload from its competitor,* Firefly Aerospace (more on this later).  
 Even with this shortcut, Astra will still only have a rocket two years from now that  
 is able to launch 1 Project Kuiper satellite, barely 2 Project Pelican satellites from  
 Planet, and zero Gen2 Starlink satellites.

11 111. The Report further revealed that Astra’s payload shortcomings led to a secret IP  
 12 deal with Firefly to purchase the rights to manufacture and use two of Firefly’s Reaver engines  
 13 on Astra’s rocket, contradicting Defendants’ claims of vertical integration:  
 14

15 Though Astra’s CEO and VP of Communications declined to comment on certain  
 16 specifics of the agreement, neither disputed its existence (there is no mention of  
 17 this material agreement in Astra’s SEC filings and no press releases were ever  
 18 issued by either company). When asked on the last quarterly call about the reported  
 19 Firefly relationship, management once again did not disclaim the existence of the  
 agreement, stating that anything the analyst had read online was “not inconsistent”  
 with a strategy of all technology being “owned, licensed, or developed by Astra.”

20 *So why the cloak and dagger? Perhaps Astra is aware that buying the IP for the*  
 21 *most critical piece of hardware on a rocket from a direct competitor is not exactly*  
*a good look. ...*

22 Unsurprisingly, when doing a deal with a competitor, the agreement has some  
 23 important restrictions. *The IP agreement allegedly includes a clause that only*  
 24 *allows Astra to use two Reaver engines per rocket – enough to hit Astra’s goal of*  
 25 *500kg to 500km – but no more. Recall that Firefly is developing a 630kg-1,000kg*  
 26 *rocket, and therefore the agreement caps Astra’s use of the IP just below Firefly’s*  
*capability and the emerging sweet spot for smaller launchers. Firefly seems*  
*content to help Astra for a price – but it isn’t foolish enough to solve a direct*  
*competitor’s problem of being undersized.*

27 (Emphasis added.)  
 28

1           112. On this news, Astra's shares fell \$1.10 per share, or approximately 14%, to close at  
2 \$6.61 per share on December 29, 2021, on unusually heavy trading volume, thus damaging  
3 investors.  
4

5                           **POST-CLASS PERIOD EVENTS**

6           113. Pursuant to a 2021 contract with NASA to provide launch services for TROPICS,  
7 Astra launched its Rocket 3.3 (LV0010) on June 12, 2022 containing NASA's payload. That high  
8 profile launch failed, and NASA lost the first two TROPICS CubeSats it tried to send to orbit.  
9 NASA currently is participating in the launch investigation, led by Astra and the FAA.  
10

11           114. On this news, Astra's shares fell \$0.48 per share, or approximately 24%, to close at  
12 \$1.46 per share on June 13, 2022, on unusually heavy trading volume, thus damaging investors.

13           115. Following multiple launch failures, and confirming the Report's conclusions that  
14 Astra's 500kg payload capacity, capped by its deal with Firefly, did not suffice, and that Astra  
15 could not capture a sufficient slice of the space launch market to achieve daily launch cadence  
16 by 2025 with its undersize rocket, Astra announced in a press release issued on August 4, 2022,  
17 that it had stopped production of its current rocket line altogether and, instead, would focus on  
18 "the next version of its launch system," with an increased payload capacity target of 600kg.  
19 Defendant Kemp acknowledged on an earnings call the same day that it needed to increase  
20 payload capacity because "satellites were getting larger," and made clear that test launches of the  
21 new rocket line would not occur until 2023 at the earliest.  
22

23           116. Further demonstrating that Defendants knew at the time they issued their  
24 misstatements that they could not accomplish their 2025 near daily launch cadence forecast,  
25 Defendants admitted to the market in an earnings presentation on August 4, 2022 (attached to a  
26 Form 8-K filed with the SEC) that the 500kg maximum payload capacity to which they were  
27  
28



1 limited by the Firefly agreement (a limitation they never revealed to the market), only allowed  
2 Astra *to compete for* (but not necessarily obtain) **45%** of the total addressable market of *smallsats*.  
3 Defendants therefore announced that they had to scrap the rocket line for which they targeted the  
4 500kg payload capacity and develop a new rocket line capable of attaining a 600kg payload  
5 capacity (though Defendants provided no detail as to how they obtained the capability to increase  
6 their payload capacity goal by 20%), thus purportedly allowing Astra to compete for 75% of the  
7 total addressable market.  
8

9 117. On this news, Astra's shares fell \$0.28 per share, or approximately 18%, to close at  
10 \$1.30 per share on August 5, 2022, on unusually heavy trading volume, thus damaging investors.  
11

12 118. As a result of Defendants' wrongful acts and omissions, and the decline in the  
13 market value of the Company's securities, Plaintiffs and other Class members have suffered  
14 significant losses and damages.

15 119. Since Astra began trading publicly its shares have lost over 95% in value. On  
16 October 7, 2022, Astra disclosed receipt of a deficiency notice from NASDAQ for failure to  
17 comply with listing requirements because its per share closing bid price remained below \$1.00  
18 for thirty consecutive business days.  
19

20 **ADDITIONAL SCIENTER ALLEGATIONS WITH RESPECT TO COUNTS I AND III**

21 120. Defendant Kemp entered into, and thus had actual knowledge of, the Firefly  
22 agreement when he issued misstatements regarding Astra's increased payload capacity goal of  
23 500kg by 2025.

24 121. Defendants at all times had access to data contradicting their public statements. In  
25 an investor presentation filed with the SEC on February 2, 2021, Defendants acknowledged as  
26  
27  
28

1 such by touting their “instant and persistent access to data,” and further stated that “decisions  
2 driven by real-time data acquired across all platforms via proprietary operational platform.”  
3

4 122. Defendants explicitly stated in Astra’s Class Period SEC filings that their “primary  
5 focus” was on, *inter alia*, “increasing our launch cadence” and “increasing the payload of our  
6 rockets.”

7 123. Demonstrating that Defendants knew at the time they issued their misstatements  
8 that they could not accomplish their 2025 near daily launch cadence forecast, Defendants admitted  
9 to the market in an earnings presentation on August 4, 2022 (attached to a Form 8-K filed with the  
10 SEC) that the 500kg maximum payload capacity to which they were limited by the Firefly  
11 agreement (a limitation they never revealed to the market), only allowed Astra *to compete for* (but  
12 not necessarily obtain) 45% of the total addressable market of *smallsats*. Defendants therefore  
13 announced that they had to scrap the rocket line for which they targeted the 500kg payload capacity  
14 and develop a new rocket line capable of attaining a 600kg payload capacity (though Defendants  
15 provided no detail as to how they obtained the capability to increase their payload capacity goal  
16 by 20%), thus purportedly allowing Astra to compete for 75% of the total addressable market.  
17

18 124. On December 27, 2020, Defendant Kemp was issued 5,250,000 shares of Astra  
19 Class A common stock and an option to acquire 10,000 stock options which were fully vested at  
20 the time of grant. The shares had a grant date fair value of \$4.49 per share. In total, for 2020,  
21 Defendant Kemp received \$23,572,500 in stock awards. Five days before Holicity approved the  
22 Reverse Merger agreement, and concurrent with a Series C Financing, on January 28, 2021,  
23 Defendant Kemp entered into a stock purchase agreement with certain investors whereby  
24 Defendant Kemp sold a total of 3,775,879 shares of Founders Preferred Stock for a total purchase  
25 price of \$25.0 million. Following the Reverse Merger, Defendant Kemp held approximately 27  
26  
27  
28

1 million shares of Astra Class B common stock (converted from Class A common stock held pre-  
2 Reverse Merger), representing approximately 36% of the voting power in the surviving entity.  
3 The Defective Proxy Statement stated that Defendant Kemp “leads the overall company strategy  
4 and direction.” Pursuant to a new employment agreement, following the Reverse Merger,  
5 Defendant Kemp’s annual base salary doubled, increasing from \$256,000 to \$600,000.  
6

7 125. In July 2020, the same month Holicity filed the Registration Statement on Form S-  
8 4, Defendant Ednie received 40,000 Founder Shares. Following a 1.1 for 1 common stock split  
9 on August 4, 2020, Defendant Ednie held 44,000 shares of Holicity common stock, which  
10 converted to 44,000 shares of Astra common stock following the Reverse Merger.  
11

12 126. In connection with the commencement of her employment with Astra in December  
13 2020, Defendant Brannon received a grant of 1,500,000 stock options. On April 23, 2021,  
14 however, the Astra board of directors of accelerated vesting of all of Defendant Brannon’s options,  
15 which were subsequently immediately exercised and sold to unaffiliated investors in the secondary  
16 market. Moreover, pursuant to a new employment agreement, following the Reverse Merger,  
17 Defendant Brannon’s annual base salary increased by 21% from \$330,000 to \$400,000. Defendant  
18 Brannon’s employment agreement further provided the potential to earn an annual bonus for 2021  
19 equal to 75% of her base salary.  
20

### 21 **PLAINTIFFS’ CLASS ACTION ALLEGATIONS**

22 127. Plaintiffs bring this action as a class action pursuant to Federal Rule of Civil  
23 Procedure 23(a) and (b)(3) on behalf of a Class, consisting of all those who purchased or otherwise  
24 acquired the publicly traded securities of the Company during the Class Period (the “Class”) and  
25 were damaged upon the revelation of the alleged corrective disclosure. Excluded from the Class  
26 are Defendants herein, the officers and directors of the Company, at all relevant times, members  
27  
28

1 of their immediate families and their legal representatives, heirs, successors or assigns and any  
2 entity in which Defendants have or had a controlling interest.

3  
4 128. The members of the Class are so numerous that joinder of all members is  
5 impracticable. Throughout the Class Period, the Company's securities were actively traded on the  
6 NASDAQ. While the exact number of Class members is unknown to Plaintiffs at this time and  
7 can be ascertained only through appropriate discovery, Plaintiffs believe that there are hundreds  
8 or thousands of members in the proposed Class. Record owners and other members of the Class  
9 may be identified from records maintained by the Company or its transfer agent and may be  
10 notified of the pendency of this action by mail, using the form of notice similar to that customarily  
11 used in securities class actions.  
12

13 129. Plaintiffs' claims are typical of the claims of the members of the Class as all  
14 members of the Class are similarly affected by Defendants' wrongful conduct in violation of  
15 federal law that is complained of herein.

16 130. Plaintiffs will fairly and adequately protect the interests of the members of the Class  
17 and has retained counsel competent and experienced in class and securities litigation. Plaintiffs  
18 have no interests antagonistic to or in conflict with those of the Class.  
19

20 131. Common questions of law and fact exist as to all members of the Class and  
21 predominate over any questions solely affecting individual members of the Class. Among the  
22 questions of law and fact common to the Class are:

- 23 (a) whether Defendants' acts as alleged violated the federal securities laws;  
24 (b) whether Defendants' statements to the investing public during the Class Period  
25 misrepresented material facts about the financial condition, business, operations,  
26 and management of the Company;  
27  
28

- (c) whether Defendants' statements to the investing public during the Class Period omitted material facts necessary to make the statements made, in light of the circumstances under which they were made, not misleading;
- (d) whether the Individual Defendants caused the Company to issue false and misleading SEC filings and public statements during the Class Period;
- (e) whether Defendants acted knowingly or recklessly in issuing false and misleading SEC filings and public statements during the Class Period;
- (f) whether the prices of the Company's securities during the Class Period were artificially inflated because of the Defendants' conduct complained of herein; and
- (g) whether the members of the Class have sustained damages and, if so, what is the proper measure of damages.

132. A class action is superior to all other available methods for the fair and efficient adjudication of this controversy since joinder of all members is impracticable. Furthermore, as the damages suffered by individual Class members may be relatively small, the expense and burden of individual litigation make it impossible for members of the Class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.

133. Plaintiffs will rely, in part, upon the presumption of reliance established by the fraud-on-the-market doctrine in that:

- (a) Defendants made public misrepresentations or failed to disclose material facts during the Class Period;
- (b) the omissions and misrepresentations were material;
- (c) the Company's securities are traded in efficient markets;

- 1 (d) the Company's securities were liquid and traded with moderate to heavy volume  
2 during the Class Period;
- 3 (e) the Company traded on the NASDAQ, and was covered by market analysts;
- 4 (f) the misrepresentations and omissions alleged would tend to induce a reasonable  
5 investor to misjudge the value of the Company's securities;
- 6 (g) Plaintiffs and members of the Class purchased and/or sold the Company's securities  
7 between the time the Defendants failed to disclose or misrepresented material facts  
8 and the time the true facts were disclosed, without knowledge of the omitted or  
9 misrepresented facts; and
- 10 (h) Unexpected material news about the Company was rapidly reflected in and  
11 incorporated into the Company's stock price during the Class Period.

12 134. Based upon the foregoing, Plaintiffs and the members of the Class are entitled to  
13 a presumption of reliance upon the integrity of the market.

14 135. Alternatively, Plaintiffs and the members of the Class are entitled to the  
15 presumption of reliance established by the Supreme Court in *Affiliated Ute Citizens of the State of*  
16 *Utah v. United States*, 406 U.S. 128, 92 S. Ct. 2430 (1972), as Defendants omitted material  
17 information in their Class Period statements in violation of a duty to disclose such information, as  
18 detailed above.

## 19 **COUNT I**

### 20 **Violation of Section 10(b) of The Exchange Act and SEC Rule 10b-5**

### 21 **Against All Defendants**

22 136. Plaintiffs repeat and reallege each and every allegation contained above as if fully  
23 set forth herein.

1           137. This Count is asserted against the Defendants and is based upon Section 10(b) of  
2 the Exchange Act, 15 U.S.C. § 78j(b), and Rule 10b-5 promulgated thereunder by the SEC.

3  
4           138. During the Class Period, the Defendants, individually and in concert, directly or  
5 indirectly, disseminated or approved the false statements specified above, which they knew or  
6 deliberately disregarded were misleading in that they contained misrepresentations and failed to  
7 disclose material facts necessary in order to make the statements made, in light of the  
8 circumstances under which they were made, not misleading.

9           139. The Defendants violated §10(b) of the 1934 Act and Rule 10b-5 in that they:  
10 employed devices, schemes and artifices to defraud; made untrue statements of material facts or  
11 omitted to state material facts necessary in order to make the statements made, in light of the  
12 circumstances under which they were made, not misleading; and/or engaged in acts, practices and  
13 a course of business that operated as a fraud or deceit upon Plaintiffs and others similarly situated  
14 in connection with their purchases of the Company's securities during the Class Period.

15  
16           140. The Defendants acted with scienter in that they knew that the public documents and  
17 statements issued or disseminated in the name of the Company were materially false and  
18 misleading; knew that such statements or documents would be issued or disseminated to the  
19 investing public; and knowingly and substantially participated, or acquiesced in the issuance or  
20 dissemination of such statements or documents as primary violations of the securities laws. These  
21 defendants by virtue of their receipt of information reflecting the true facts of the Company, their  
22 control over, and/or receipt and/or modification of the Company's allegedly materially misleading  
23 statements, and/or their associations with the Company which made them privy to confidential  
24 proprietary information concerning the Company, participated in the fraudulent scheme alleged  
25 herein.  
26  
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1           141. The 10(b) Individual Defendants, who are a senior officers and/or directors of the  
2 Company, had actual knowledge of the material omissions and/or the falsity of the material  
3 statements set forth above, and intended to deceive Plaintiffs and the other members of the Class,  
4 or, in the alternative, acted with reckless disregard for the truth when they failed to ascertain and  
5 disclose the true facts in the statements made by them or other personnel of the Company to  
6 members of the investing public, including Plaintiffs and the Class.  
7

8           142. As a result of the foregoing, the market price of the Company's securities was  
9 artificially inflated during the Class Period. In ignorance of the falsity of the Defendants'  
10 statements, Plaintiffs and the other members of the Class relied on the statements described above  
11 and/or the integrity of the market price of the Company's securities during the Class Period in  
12 purchasing the Company's securities at prices that were artificially inflated as a result of the  
13 Defendants' false and misleading statements.  
14

15           143. Had Plaintiffs and the other members of the Class been aware that the market price  
16 of the Company's securities had been artificially and falsely inflated by the Defendants'  
17 misleading statements and by the material adverse information which the Defendants did not  
18 disclose, they would not have purchased the Company's securities at the artificially inflated prices  
19 that they did, or at all.  
20

21           144. As a result of the wrongful conduct alleged herein, Plaintiffs and other members of  
22 the Class have suffered damages in an amount to be established at trial.

23           145. By reason of the foregoing, the Defendants have violated Section 10(b) of the 1934  
24 Act and Rule 10b-5 promulgated thereunder and are liable to the Plaintiffs and the other members  
25 of the Class for substantial damages which they suffered in connection with their purchases of the  
26 Company's securities during the Class Period.  
27  
28



**COUNT II**

**Violation of Section 14 of the Exchange Act and SEC Rule 14a-9 Against the Company and the Proxy Defendants**

146. Plaintiffs repeat and re-allege each and every allegation contained in the foregoing paragraphs as if fully set forth herein, except the allegations in those subsections specified to relate solely to Plaintiffs' claims under Section 10(b) and 20(a) of the Exchange Act.

147. This claim does not sound in fraud. For the purposes of this claim, Plaintiffs expressly exclude and disclaim any allegation that could be construed as alleging or sounding in fraud or intentional or reckless misconduct. This claim is based solely on negligence. Plaintiffs do not allege that Defendants had scienter or fraudulent intent with respect to this Count.

148. This claim is brought against the Proxy Defendants pursuant to Section 14(a) of the Exchange Act (15 U.S.C. § 78n(a)) and Rule 14a 9 promulgated thereunder (17 C.F.R. § 240.14a 9), on behalf of all shareholders of who were solicited to approve the Reverse Merger and to retain rather than redeem Holicity shares pursuant to the Defective Proxy Statement.

149. The Defective Proxy Statement contained statements that, at the time and in light of the circumstances under which they were made, were false and misleading with respect to material facts, and omitted to state material facts necessary in order to make the statements therein not false or misleading.

150. The Defendants named in this Count prepared, reviewed, and/or disseminated the Defective Proxy Statement without sufficient meaningful cautionary language.

151. Defendants named in this Count, jointly and severally, solicited and/or permitted use of their names in solicitations contained in the Defective Proxy Statement and other proxy solicitation materials.

1           152. By means of the Defective Proxy Statement and documents attached thereto or  
2 incorporated by reference therein and other proxy solicitation materials, Defendants sought to  
3 secure Plaintiffs' and other Class members' approval of the Reverse Merger and solicited proxies  
4 from Plaintiffs and other members of the Class.  
5

6           153. Each Defendant named in this Count acted negligently in making inaccurate  
7 statements of material facts, and/or omitting material facts required to be stated in order to make  
8 those statements not misleading, and failing to include adequate meaningful risk disclosures.  
9 Defendants were required to ensure that the June 8, 2021 Defective Proxy Statements and all  
10 other proxy solicitation materials fully and fairly disclosed all material facts to allow an investor  
11 to make an informed investment decision.  
12

13           154. As a direct result of the Proxy Defendants' negligent preparation, review and  
14 dissemination of the Defective Proxy Statement, members of the 14(a) Class were precluded  
15 from exercising their right to seek redemption of their Holicity shares prior to the Reverse Merger  
16 on a fully informed basis and were induced to vote their shares and accept inadequate  
17 consideration in connection with the merger. The Defective Proxy Statement used to obtain  
18 shareholder approval of the Reverse Merger deprived 14(a) Class members of their right to a  
19 fully informed shareholder vote in connection therewith and the full and fair value for their  
20 Holicity shares. At all times relevant to the dissemination of the Defective Proxy Statement, these  
21 Defendants were aware of and/or had access to the true facts concerning Astra. Thus, as a direct  
22 and proximate result of the dissemination of the Defective Proxy Statement that the Proxy  
23 Defendants used to obtain shareholder approval of and thereby consummate the merger, the 14(a)  
24 Class suffered damages and actual economic losses in an amount to be determined at trial  
25  
26  
27  
28

156. Plaintiffs and other members of the Class eligible to vote on the Reverse Merger, were misled by Defendants' false and misleading statements and omissions, were denied the opportunity to make a fully informed decision in voting on the Reverse Merger and were damaged as a direct and proximate result of the untrue statements and omissions set forth herein.

158. The untrue statements and omissions as set forth above proximately caused foreseeable losses to Plaintiffs and other members of the Class.

160. By reason of the foregoing, the Defendants violated Section 14(a) of the Exchange Act, 15 U.S.C. § 78n(a), and Rule 14a-9 promulgated thereunder, 17 C.F.R. § 240.14a-9.

## Violation of Section 20(a) of The Exchange Act Against The Individual Defendants

162. During the Class Period, the Individual Defendants participated in the operation and management of the Company, and conducted and participated, directly and indirectly, in the

1 conduct of the Company's business affairs. Because of their senior positions, they knew the  
2 adverse non-public information regarding the Company's business practices.

3  
4 163. As officers and directors of a publicly owned company, the Individual Defendants  
5 had a duty to disseminate accurate and truthful information with respect to the Company's  
6 financial condition and results of operations, and to correct promptly any public statements issued  
7 by the Company which had become materially false or misleading.

8  
9 164. Because of their positions of control and authority as senior officers and/or  
10 directors, the Individual Defendants were able to, and did, control the contents of the various  
11 reports, press releases and public filings which the Company disseminated in the marketplace  
12 during the Class Period. Throughout the Class Period, the Individual Defendants exercised their  
13 power and authority to cause the Company to engage in the wrongful acts complained of herein.  
14 The Individual Defendants, therefore, were each a "controlling person[]" of the Company within  
15 the meaning of Section 20(a) of the Exchange Act. In this capacity, they participated in the  
16 unlawful conduct alleged which artificially inflated the market price of the Company's securities.

17  
18 165. The Individual Defendants, therefore, acted as controlling persons of the Company.  
19 By reason of their senior management positions and being a director of the Company, the  
20 Individual Defendants had the power to direct the actions of, and exercised the same to cause, the  
21 Company to engage in the unlawful acts and conduct complained of herein. The Individual  
22 Defendants exercised control over the general operations of the Company and possessed the power  
23 to control the specific activities which comprise the primary violations about which Plaintiffs and  
24 the other members of the Class complain.

25  
26 166. By reason of the above conduct, the Individual Defendants are liable pursuant to  
27 Section 20(a) of the Exchange Act for the violations committed by the Company.  
28

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs demand judgment against Defendants as follows:

A. Determining that the instant action may be maintained as a class action under Rule 23 of the Federal Rules of Civil Procedure, and certifying Plaintiffs as the Class representatives;

B. Requiring Defendants to pay damages sustained by Plaintiffs and the Class by reason of the acts and transactions alleged herein;

C. Awarding Plaintiffs and the other members of the Class prejudgment and post-judgment interest, as well as their reasonable attorneys' fees, expert fees, and other costs; and

D. Awarding such other and further relief as this Court may deem just and proper.

**DEMAND FOR TRIAL BY JURY**

Plaintiffs hereby demand a trial by jury.

Dated: December 28, 2022

Respectfully submitted,

**POMERANTZ LLP**

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